

CLAIMS

1. An optical encoder strip comprising:
 - an indexing area which is used to generate an indexing signal;
 - an encoding area which is used to generate an encoding signal;
 - a calibration area on said strip which is used to generate a calibration signal for modulating brightness of a light source.
2. The optical encoder strip of Claim 1, wherein one embodiment of said strip is a rectangular strip.
3. The optical encoder strip of Claim 1, wherein one embodiment of said strip is a circular disk.
4. An optical encoder comprising:
 - a photo-emitter;
 - a code strip having a calibration area for generating a calibration signal;
 - a detector having a calibration photodiode for converting the light from the calibration area into an electrical calibration signal; and
 - a circuit coupled to said detector and said photo-emitter, wherein said circuit modulates current to said photo-emitter according to said calibration signal.

5. The optical encoder of Claim 4, wherein said calibration area of said code strip is transparent.
6. The optical encoder of Claim 4, wherein said code strip comprises an indexing area for generating an indexing signal.
7. The optical encoder of Claim 4, wherein said code strip comprises an encoding area for generating an encoding signal.
8. The optical encoder of Claim 4, wherein said code strip is arranged such that light from the photo-emitter passes through transparent areas on said code strip.
9. The optical encoder of Claim 4, wherein said detector is arranged to receive light which passes from said photo-emitter through transparent areas on said code strip.
10. The optical encoder of Claim 4, wherein said detector has a calibration photodiode arranged to receive light which passes from said photo-emitter through said calibration area of said code strip.
11. The optical encoder of Claim 4, wherein said detector has an indexing photodiode arranged to receive light which passes from said photo-emitter through said indexing area of said code strip.

12. The optical encoder of Claim 4, wherein said detector has an encoding photodiode arranged to receive light which passes from said photo-emitter through said encoding area of said code strip.
13. The optical encoder of Claim 4, wherein said calibration photodiode on said detector converts light which passes from said photo-emitter through said calibration area on said code strip into a calibration signal.
14. The optical encoder of Claim 4, wherein said circuit modulates current to said photo-emitter in response to said calibration signal originating from said calibration photodiode on said detector.
15. An optical encoding method comprising:
 - generating light from a light source;
 - transmitting said light through a code strip, said code strip comprising a calibration area;
 - receiving said light after it has been transmitted through said calibration area;
 - converting said light into a calibration signal;
 - using said calibration signal to modulate a brightness of said light.
16. The optical encoding method of Claim 15, wherein the calibration signal is a function of a degree of transparency of the calibration area of the code strip.

17. The optical encoding method of Claim 15, wherein the brightness of said light is controlled by the electrical calibration signal.

18. The optical encoding method of Claim 15, wherein the brightness of said light is a function of the degree of transparency of the calibration area of said code strip.